



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,024	11/21/2003	Matthew G. Thorn	C51757 0680	3206

35395 7590 03/24/2006

WOMBLE CARLYLE SANDRIDGE & RICE, PPLC  
CHEVRON PHILLIPS CHEMICAL COMPANY LP  
P.O. BOX 7037  
ATLANTA, GA 30357-0037

EXAMINER

LEE, RIP A

ART UNIT	PAPER NUMBER
----------	--------------

1713

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

CM

**Office Action Summary**

Application No.

10/720,024

Applicant(s)

THORN ET AL.

Examiner

Rip A. Lee

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 and 9-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 18-22 and 29-31 is/are rejected.
- 7) ☒ Claim(s) 4<sup>5</sup> 9-17 and 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### DETAILED ACTION

This office action follows a response filed on January 3, 2006. Applicants have amended claims 1, 5, 16-18, 23, and 27-31. Claims 6-8 were canceled. Claims 1-5 and 9-31 remain.

#### *Double Patenting and Claim Rejections - 35 USC § 102*

1. The text of those sections of Title 37, CFR and Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claim 29 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 1. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). Both claims are drawn to the same composition. That the composition is called a catalyst composition or a composition of matter is merely a difference in nomenclature.
3. Claims 1, 4, and 20-22 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 38-41 and 45 of copending Application No. 10/797,673 for the same reasons set forth in the previous office action.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.
4. Claims 1, 2, 4, 18-22, and 29-31 are rejected under 35 U.S.C. 102(b) as being anticipated by McDaniel *et al.* (U.S. 6,376,415) for the same reasons set forth in the previous office action.
5. Claims 1, 2, 4, 18-22, and 29-31 are rejected under 35 U.S.C. 102(b) as being anticipated by McDaniel *et al.* (U.S. 6,395,666) for the same reasons set forth in the previous office action.
6. Claims 1-4, 20-22, and 29-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Hawley *et al.* (U.S. 6,667,274) for the same reasons set forth in the previous office action.

***Allowable Subject Matter***

7. Claims 5 and 9-17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Whereas the patents disclose use of organoaluminum co-activator, there is no disclosure to use the other cocatalysts described in claim 5. In fact, the goal of the prior art is to use a process that precludes use of either aluminoxane or boron based co-activator. Thus, none of the cited references teaches or fairly suggests the subject matter of these claims.

8. The following is a statement of reasons for the indication of allowable subject matter: Claims 23-28 are allowed over the references cited to date. The claims are drawn to catalyst compositions consisting essentially of metallocene and solid oxide chemically treated with electron withdrawing anion. Applicants have discovered that solid oxide chemically treated with electron withdrawing anion is sufficiently acidic to activate the metallocene. As such, these solid oxide supports are termed "activator-support." Use of such a support obviates the need the typical co-activators used in the art. The cited references disclose catalysts comprising metallocene, solid oxide chemically treated with electron withdrawing anion, and organoaluminum coactivator. There is no teaching or suggestion to eliminate the organoaluminum component, and one of ordinary skill in the art would not have found it obvious to make or use a catalyst without said organoaluminum component.

***Response to Arguments***

9. Applicant's arguments have been considered fully, but they are not persuasive. The present claims remain anticipated by the cited references because the term "comprising" does not exclude unrecited components. The rejection of claims over Ahn *et al.* (*Organometallics*, 2002) has been overcome by amendment.

Art Unit: 1713

*Conclusion*

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (571)272-1104. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (571)272-1114. The fax phone number for the organization where this application or proceeding is assigned is (571)273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on the access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

ral

March 17, 2006

  
DAVID W. WU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700